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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/673,534	09/29/2003	Raghuram Narayan	INTEL/14492	1850
34431	7590	11/02/2005	EXAMINER	
HANLEY, FLIGHT & ZIMMERMAN, LLC			NGUYEN, DUNG T	
20 N. WACKER DRIVE			ART UNIT	
SUITE 4220			PAPER NUMBER	
CHICAGO, IL 60606			2828	

DATE MAILED: 11/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/673,534

Applicant(s)

NARAYAN, RAGHURAM

Examiner

Dung (Michael) T. Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) 12-21 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 and 22-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 04/09/04.

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## **DETAILED ACTION**

### ***Election/Restrictions***

Applicant's election without traverse of Group I (claims 1-11 and 22-26) in the reply filed on 10/10/05 is acknowledged.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-7, 22-23, and 25-26 are rejected under 35 U.S.C. 102(b) as being anticipated by Kando (5044718).

With respect to claims 1, 6-7, 22-23, and 25, Fig.23 shows a gain chip 5a to emit optical energy, the gain chip including a reflective portion (it is inherent that the semiconductor laser (col.24, l.48) must have reflective facets at both ends); an actuator 71, a lens 3d coupled to the actuator and configured to receive optical energy emitted by the gain chip; a grating 12 to receive optical energy emitted by the gain chip and to reflect at least a portion of the optical energy emitted by the gain chip; a reflector 7e to receive optical energy reflected from the grating, the reflector and the reflective portion of the gain chip forming an optical resonant structure; and a processing unit 80 (controller) coupled to the actuator to position the lens at a location to select a wavelength of operation of the optical resonant structure (col.27, l.10-58).

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With respect to claim 2, col.32, l.25-27 discloses a two-axis actuator.

With respect to claim 3, col.36, l.25-27 discloses a voice coil actuator.

With respect to claim 4, Fig.23 shows the lens 3d is movable in planes perpendicular to an optical axis on which the optical energy flows.

With respect to claims 5 and 26, Fig.23 shows a detector 3j.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kando (5044718) in view of Kondo (5781003). Kando disclose all limitations of the claim except for the electro-optical crystal.

Kondo teaches the electro-optical crystal 57 in Fig.1.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide Kando what is taught by Kondo in order to control the polarization state in the resonant structure (col.1, l.49-55).

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Claims 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kando (5044718) in view of McDonald et al. (2004/0101016).

With respect to claim 9, Kando disclose all limitations of the claim except for the etalon.

McDonald teach the etalon in para.0041, l.7.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide Kando what is taught by McDonald in order to select a desired wavelength for lasing (para.0041, l.6-7).

With respect to claims 10-11, Kando disclose all limitations of the claims except for the C-band ITU.

McDonald teach the C-band ITU (para.0041).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide Kando what is taught by McDonald in order to employ a standard lasing wavelength as set by the ITU.

Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kando (5044718) in view of Takamiya (6034761). Kando disclose all limitations of the claim except for the EO crystal and grating on the substrate.

Takamiya teaches the EO crystal 10 and grating 22 on the substrate 103 (Fig.4, col.4, l.13-23).

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It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide Kando what is taught by Takimiya in order to simplify the optical resonant structure to save cost and space (col.4, l.21).

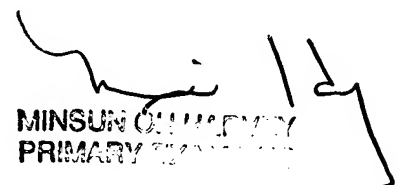
### Communication Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dung (Michael) T Nguyen whose telephone number is (571) 272-1949. The examiner can normally be reached on 8:30 - 17:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Min Harvey can be reached on (571) 272-1835. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-3329.

Michael Dung Nguyen

  
MINSUN KIM  
PRIMARY EXAMINER